Jones

Jones Overview

Volunteer monitoring began at Jones Lake in 2000 and continued through 2004. The data indicate that this city lake (Black Diamond) is moderate to high in primary productivity (mesotrophic - eutrophic), with good to fair water quality.

Jones Lake currently has no public access points, but users should keep an eye on aquatic plants growing nearshore to catch early infestations of Eurasian milfoil, Brazilian elodea or other noxious weeds.

Physical Parameters

Secchi transparency was stable, ranging between 2.0 and 2.2 m through the Level II sampling season, averaging closer to 2.0 m which was in the lower range of clarity among the small lakes monitored in 2004. Surface water temperatures reached a maximum of 27.0 degrees Celsius in late July, which was the third warmest temperature recorded among the group.

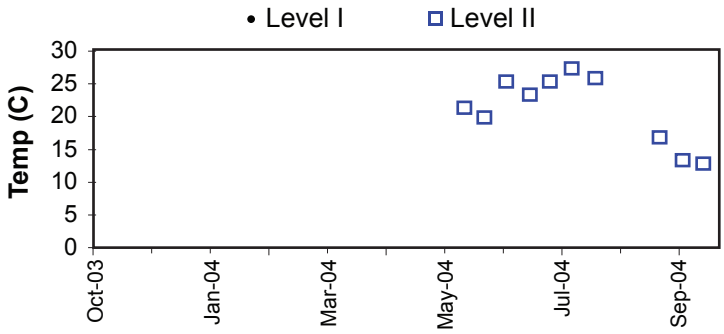
There were no precipitation or water levels records for the year.

Nutrient Analysis and TSI Ratings

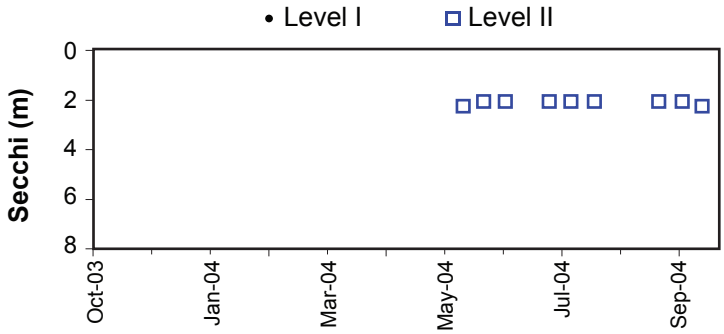
Total phosphorus and total nitrogen maintained broadly similar proportions to each other during the sampling season, with distinctly higher nitrogen found in the autumn samples. The N:P ratio ranged from 16 to 36, averaging 26 which suggested relatively poor conditions for nuisance bluegreen growth.

Jones Lake is too shallow for profile sampling to provide important information.

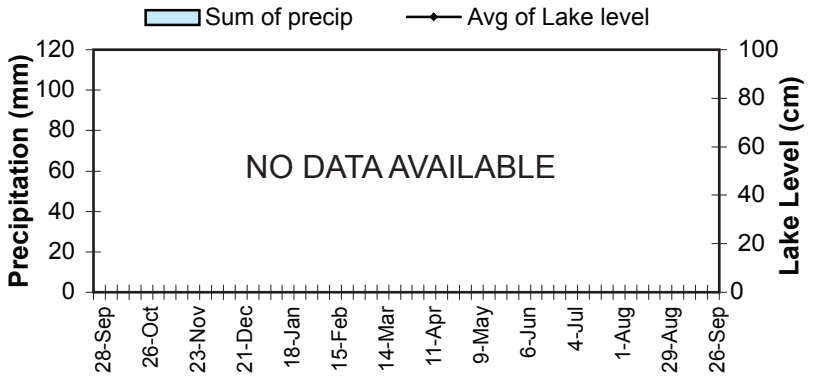
Lake Temperature



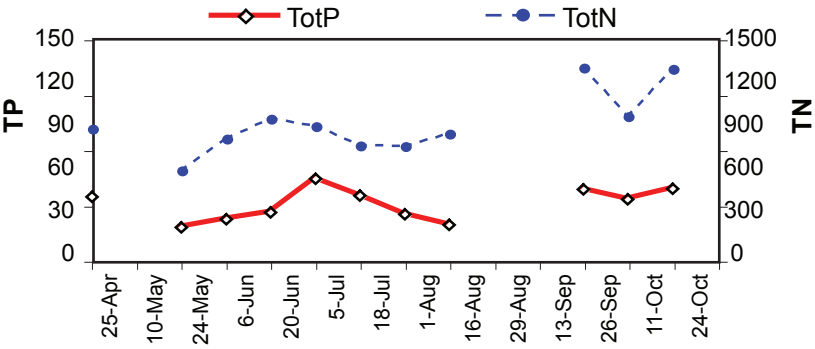
Secchi Depth



Lake Level and Precipitation



Nutrient Analysis



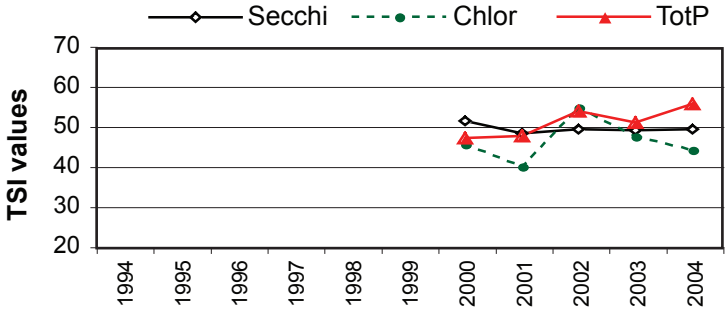
The 2004 indicators were spread across the threshold between eutrophy and mesotrophy, similar to last year but with more spread between the values. The indicator values have been variable from year to year, with chlorophyll particularly changeable, but the average value may be increasing over time.

Chlorophyll Concentrations and Algae

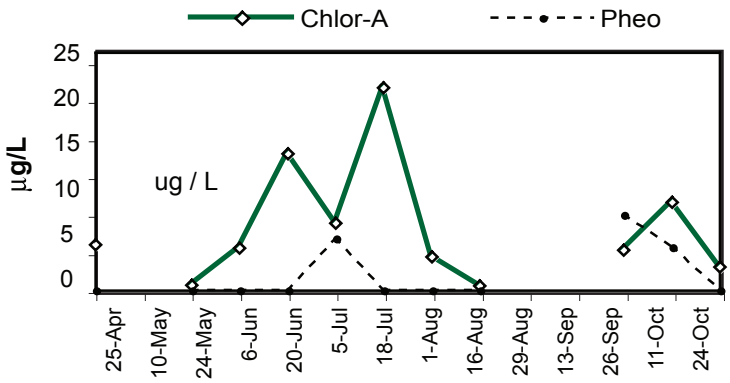
Chlorophyll peaked in mid-July and was at relatively low levels for the rest of the season. Commonly found algae included the chrysophyte *Dinobryon* and the euglenophyte *Trachelomonas.* The bluegreen filament *Oscillatoria* was also commonly found in the samples, but may have been introduced from the bottom sediments where it is known to form populations in many Western Washington small lakes.

Date	Secchi	depth-m	degC	Chlor-A	TP µg/L	TN µg/L
NO DATA AVAILABLE						

TSI Ratings



Chlorophyll a Concentrations (ug/L)



Common Algae

	Group
Dinobryon sociale	Chrysophyta
Oscillatoria sp.	Cyanobacteria
Trachelomonas sp	Euglenophyta

Jones

2004 Level I Data not available

2004 Level II Data

Date (2004)	Temp (°C)	Secchi (m)	Chl-*a* (µg/l)	TP (µg/l)	TN (µg/l)	Algae Obsv.	N:P	Calculated TSI		
								Secc	chl-a	TP
25-Apr	NR	2.3	4.81	42.8	889	1	21	48.0	46.0	58.3
10-May										
24-May	21.0	2.2	<detect	22.2	607	1	27	48.6	25.6	48.9
6-Jun	19.5	2.0	4.49	27.8	820	2	29	50.0	45.3	52.1
20-Jun	25.0	2.0	14.40	32.1	955		30	50.0	56.7	54.2
5-Jul	23.0	NR	7.05	55.0	904		16		49.7	62.0
18-Jul	25.0	2.0	21.30	43.6	774		18	50.0	60.6	58.6
1-Aug	27.0	2.0	3.52	30.9	773	3	25	50.0	42.9	53.6
16-Aug	25.5	2.0	<detect	23.8	856	3	36	50.0	23.8	49.9
29-Aug										
13-Sep										
26-Sep	16.5	2.0	4.23	47.7	1300	3	27	50.0	44.7	59.9
11-Oct	13.0	2.0	9.26	41.2	970	2	24	50.0	52.4	57.8
24-Oct	12.5	2.2	2.50	48.1	1290	2	27	48.6	39.6	60.0

	Temp (°C)	Secchi (m)	Chl-*a* (µg/l)	TP (µg/l)	TN (µg/l)	Algae	N:P	Calculated TSI		
								Secc	chl-a	TP
Mean	20.8	2.1	8.0	37.7	921.6	2.1	25	49.5	44.3	55.9
Median	22.0	2.0	4.8	41.2	889.0	2	27	50.0	45.3	57.8
Min	12.5	2.0	2.5	22.2	607.0	1	16	48.0	23.8	48.9
Max	27.0	2.3	21.3	55.0	1300.0	3	36	50.0	60.6	62.0
Count	10	10	9	11	11	8	11	10	11	11

TSI Average = 49.9